

ATTACHMENT J4

Niagara Falls ARS Wastewater System

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J4 Niagara Falls ARS Wastewater System

J4.1 Niagara Falls ARS Overview

The Niagara Falls Air Reserve Station (ARS) is home to the 914th Airlift Wing (AW) of the Air Force Reserve and the 107th Air Refueling Wing (ARW) of the New York Air National Guard. The 914th AW is the host unit at the Niagara Falls ARS and the 107th ARW is the largest tenant. The installation is located approximately 6 miles east of Niagara Falls, New York and 20 miles north of Buffalo, New York. The installation occupies 985 acres on the northern part of the Niagara Falls International Airport in Niagara County, New York. The installation leases 38.71 acres from the People of the State of New York and 37.1 acres from the Niagara Frontier Transportation Authority.

The 914th AW has an economic impact of over \$76 million on the surrounding area. The working population consists of 1,117 Reservists and 397 full time personnel, of which 209 are civilians. The 914th AW's mission is to provide airland and aerial delivery of troops, supplies, and equipment using C-130 H-3 Hercules cargo aircraft carriers. The base occupies 82 buildings on the Niagara Falls ARS including 62 buildings dedicated to industrial activities and 20 to administrative activities.

The 107th ARW has an economic impact of over \$61 million on the surrounding area. The working population consists of 552 assigned personnel, 260 active Reservists and military technicians, and 18 other employees. The 107th ARW's mission is to provide in-flight refueling services for cargo and passenger movements using KC-135 Stratotankers. The base occupies 22 buildings on the Niagara Falls ARS including 16 buildings dedicated to industrial activities and 6 to administrative activities.

The Niagara Falls International Airport opened in 1928 and was joined by the military in 1946. The base has expanded several times over the years. The base has some Visiting Officer Quarters but no permanent on-base military family housing. No significant growth or reduction in building square footage or personnel is planned.

J4.2 Wastewater System Description

J4.2.1 Wastewater System Fixed Equipment Inventory

The wastewater collection system consists of all appurtenances physically connected to the collection system from the point of demarcation defined by the right of way. The system may include pipelines, manholes, lift stations, valves, controls, treatment plants, and meters. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be

entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the wastewater collection system privatization are:

- Oil/water separators and grease traps
- Stormwater diversion pump station located in the Airfield Apron of the 107th ARW.

J4.2.1.1 Description

Wastewater generated by the Niagara Falls ARS discharges to the Niagara County Sewer District No. 1 (NCSD) sanitary sewer collection system at two locations. Wastewater from the main lift station discharges through a force main to a NCSD manhole in Walmore Road on the east side of the installation. Wastewater from the Fire Training Area discharges to a NCSD lateral immediately north of the fire training area and south of Lockport Road at the northwest side of the installation.

The Niagara Falls ARS wastewater collection system consists of gravity-flow and force main pipes. The installation has three lift stations that will be privatized and a stormwater diversion pump station that is excluded. The stormwater diversion pump station collects de-icing fluid from the airplane parking apron of the 107th ARW and discharges into the installation's collection system. This pump station is not part of the privatization process. Ownership of the line will start where the collection system connects to the pump station discharge line.

The lift station located at Building 815 collects wastewater from the 107th ARW and the north side of the 914th ARW. A force main conveys water from Building 815 to the main lift station which is located in Building 731. Pumps in Building 731 discharge water to the NCSD No. 1 manhole in Walmore Road east of the site. An Air Force owned meter is located in Building 731 and is used for measuring the quantity of wastewater discharged by the base. The third lift station is located at the Fire Training Area. It collects water from the Fire Training Area and discharges to a NCSD No. 1 owned lateral that extends from the Air Force property line north to Lockport Road.

Two intermediate wastewater flow meters were installed in existing system manholes near buildings 850 and 207 respectively. These meters were installed in an attempt to document infiltration flows through these lines. Both meters will be privatized.

The Niagara Falls ARS collection lines consist of PVC and cast iron laterals, oil/water separators, and PVC and vitrified clay pipe collector mains. The oil/water separators are not included in the privatization contract. The vitrified clay pipe and cast iron piping is located on the 914th AW side of the installation. The wastewater collection lines located on the 107th ARW side of the base are PVC pipe and were installed and marked with tracer wire in the mid 1990's. Burial depths for sewer lines on the Niagara Falls ARS range from approximately 6 to 14 feet below ground surface, although the actual depth may vary.

The wastewater collection system beneath the 107th ARW property consists mostly of newer PVC pipe and is in good shape. The older parts of the system on the 914th AW side of the installation are expected to be near the end of their useful life. The collection system at the 914th AW experiences significant amounts of infiltration due to stormwater infiltration into

the sanitary system. A video inspection from 1999 showed a few areas of cracked and sagging pipe at the 914th AW.

The 914th AW discharges wastewater under an industrial waste permit with the NCSD No.

1. The Air Force retains this permit and will be responsible for renewals or modifications to this permit.

J4.2.1.2 Inventory

Table 1 provides a general listing of the major wastewater system fixed assets for the Niagara Falls ARS wastewater system included in the sale.

TABLE 1

Fixed Inventory

Wastewater Utility System Niagara Falls ARS

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
<u>Piping</u>				
PVC Pipe	4	118	LF	1990
PVC Pipe	4	424	LF	1996
PVC Pipe	6	729	LF	1990
PVC Pipe	6	1,718	LF	1996
PVC Pipe	8	8,604	LF	1990
PVC Pipe	8	5,681	LF	1996
PVC Pipe	10	1,871	LF	1990
PVC Pipe	10	1,885	LF	1996
PVC Pipe	12	826	LF	1990
PVC Pipe (Forced Mains)	2	263	LF	1990
PVC Pipe (Forced Mains)	8	4,465	LF	1990
Cast Iron Pipe	3	397	LF	1950
Cast Iron Pipe	4	1,122	LF	1950
Cast Iron Pipe	6	6,821	LF	1950
Vitrified Clay Pipe	8	1,650	LF	1950
Vitrified Clay Pipe	10	352	LF	1950
Vitrified Clay Pipe	12	198	LF	1950
Ductile Iron Pipe	4	40	LF	1998
Ductile Iron Pipe	6	40	LF	1998
<u>Brick Manholes</u>				
Brick Manhole	48x96	18	EA	1950
Brick Manhole	48x144	2	EA	1950

TABLE 1

Fixed Inventory
Wastewater Utility System Niagara Falls ARS

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
<u>Precast Concrete Manholes</u>				
Precast Manhole	48x72	4	EA	1970
Precast Manhole	48x96	2	EA	1970
Precast Manhole	48x72	31	EA	1996
Precast Manhole	48x96	5	EA	1996
Precast Manhole	48x72	39	EA	1996
<u>Lift Stations</u>				
Building 731 Structure	Medium	1	EA	1970
Building 731 Wet Well	Medium	1	EA	1970
Building 731 Pumps and Controls	Medium	1	EA	1985
Building 815 Structure	Medium	1	EA	1995
Building 815 Wet Well	Medium	1	EA	1995
Building 815 Pumps and Controls	Medium	1	EA	1995
Fire Training Area Pumps and Controls	3 HP	2	EA	1998
Fire Training Area Vault & Wet Well	96 x 168 x 84	1	EA	1998
<u>Meters</u>				
Meter (in manhole near B850)	-	1	EA	1985
Meter (B731)	-	1	EA	1985
Meter (in manhole near B207)	-	1	EA	1990

Notes:

PVC = Polyvinyl Chloride

LF = Linear Feet

HP= Horsepower

EA = Each

J4.2.2 Wastewater System Non-Fixed Equipment and Specialized Tools

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Wastewater System Niagara Falls ARS

Qty	Item	Make/Model	Description	Remarks
	There are no spare parts to transfer with the bill of sale.			

TABLE 3
Specialized Vehicles and Tools
Wastewater System Niagara Falls ARS

Description	Quantity	Location	Maker
No special vehicles or tools will be transferred with the bill of sale.			

J4.2.3 Wastewater System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4
Manuals, Drawings, and Records
Wastewater System Niagara Falls ARS

Qty	Item	Description	Remarks
1	Video and Report on condition of wastewater collection system on 914th and 107th side of installation	An air force team from Randolph AFB visited the site during the fall of 1999. They used a camera and videotape to inspect and show the condition of the collection system on the 914th side of installation.	
1	Design drawings from wastewater collection system for 107th side of base	These drawings were produced for the recent system upgrade on the 107th side of the installation	Drawings available in AutoCAD
1	Set of design drawings from wastewater collection system for 914th side of base	Various drawings exist from work done on this system over the years. Includes utility system site plan layout map.	Drawings available in AutoCAD
	Manuals	Equipment manuals available will be provided in the technical library.	

J4.3 Specific Service Requirements

The service requirements for the Niagara Falls ARS wastewater collection system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Niagara Falls ARS wastewater collection system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements below take precedence.

- Some of the utility systems described in this document are located in restricted areas. Access to the restricted areas will be available only with an approved escort by base security.
- Repairs and replacements occurring on Niagara Frontier Transportation Authority (NFTA) property must be in accordance with restrictions set forth in easement agreements. Upon notice of award, the Contractor shall apply to the NFTA for an easement to allow access to the wastewater pipe crossing NFTA property. The process of transferring ownership of the wastewater collection system cannot be completed until the easements are finalized.
- Provide marks on the ground to show locations of underground distribution lines on a as needed basis as Air Force or other entities request. Mark utilities in the field to show location and depth.
- Some of the utility systems described in this document are located in restricted areas. Access to the restricted areas will be available only with an approved escort by base security.
- The Contractor shall conform to the base spill plan (copy located in the Technical Library) and provide a copy to their EPCRA report(s) to the base on request.
- The Contractor shall coordinate changes to the wastewater collection system with the Contracting Officer's designated representative.
- Meet installation architectural standards when updating the exterior of privatized structures. Documents describing base architectural standards are presented in the Technical Library.

J4.4 Current Service Arrangement

The NCSD No. 1 treats the Niagara Falls ARS wastewater. The sewer discharge is billed based on the meter reading from the Building 731 discharge. The FY 2002 annual usage was 50,500 kgal. The average monthly discharge was 4,200 kgal. Peak discharge occurred in the second quarter with 16,300 kgal, and the minimum quarterly discharge was 7,700 kgal in the fourth quarter.

The 914th AW discharges water under an industrial waste permit with the NCSD No. 1. This permit is not transferable, the Air Force will retain responsibility for the permit.

J4.5 Secondary Metering

J4.5.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3 and J3.6 below.

TABLE 5
Existing Secondary Meters
Wastewater Collection System Niagara Falls ARS

Meter Location	Meter Description (Type)
Manhole near Building 850	Secondary meter connected to pipe in the manhole.
Building 731	This meter is connected to the discharge line from the pump station. Even though this meter is the main meter for the installation, it will be privatized with the system.
Near Building 207	Secondary meter connected to pipe in the manhole

J4.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J2.6 below.

TABLE 6
New Secondary Meters
Wastewater Collection System Niagara Falls ARS

Meter Location	Meter Description
None.	

J4.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

Name: 914th AW/CEC
Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
Phone number: (716) 236-3117

2. Outage Report. The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: 914th AW/CEC
Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
Phone number: (716) 236-3117

3. Infiltration and Inflow Report. If required by Paragraph C.3, the Contractor shall submit an Infiltration and Inflow report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to:

Name: 914th AW/CEC
 Address: 2405 Franklin Drive, Niagara Falls, New York 14304-5063
 Phone number: (716) 236-3117

J4.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3, Utility Service Requirement, I&I projects have been implemented by the Government for managing and monitoring I&I. Currently there are no active I&I projects. However, the previous studies showed that infiltration of groundwater is occurring. Information from the previous studies is provided in the technical library and will be turned over to the successful bidder.

J4.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Niagara Falls ARS boundaries and areas covered under the Niagara Frontier Transportation Authority easement.

J4.9 Off-Installation Sites

The pipe that carries wastewater from the pump station in Building 731 to the NCSD No.1 interceptor, crosses land that is not owned or leased by the Air Force. Niagara Frontier Transportation Authority (NFTA) owns the land this pipe crosses. NFTA has granted an easement to the Air Force to allow access to the pipe for repair or service. The Contractor will be required to obtain their own easement with NFTA. This pipe is included in the privatization and is included in the inventory presented in this RFP.

J4.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

TABLE 7
 Service Connections and Disconnections
 Wastewater System Niagara Falls ARS

Location	Description
None	The government does not require new connections or disconnections during the transition period.

J4.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Niagara Falls ARS wastewater system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through [Schedule L-3](#). Renewal and Replacement projects will be recovered through [Sub-CLIN AC](#).

TABLE 8
System Deficiencies
Wastewater System Niagara Falls ARS

Project Location	Project Description
No deficiencies.	